

WHAT IS CLAIMED IS:

1. A spiral separation membrane element which comprises a perforated cored central tube and, wound therearound, one or more separation membranes, one or more feed-side passage materials, and one or more permeation-side passage materials, wherein the feed-side passage materials each have warps extending almost parallel with the direction of flow of a feed liquid and wefts which are thinner than the warps, and a ratio of a pitch of the warps to a pitch of the wefts is 1/1.5 to 1/6.

2. The spiral separation membrane element as claimed in claim 1, wherein a ratio of the warp diameter to the weft diameter in the feed-side passage materials is 2.5/1 or smaller.

3. The spiral separation membrane element as claimed in claim 1, wherein the ratio of a pitch of the warps to a pitch of the wefts is 1/3 to 1/5.

4. The spiral separation membrane element as claimed in claim 1, wherein the warp pitch is 2.5-5 mm, and the weft pitch is 10-20 mm.

5. The spiral separation membrane element as claimed in claim 1, wherein the warp/weft intersection angle is 0-80°.

6. The spiral separation membrane element as claimed in claim 5, wherein the angle is 30-70°.

7. The spiral separation membrane element as claimed in claim 2, wherein the ratio is 1.1/1 to 2.3/1.

8. The spiral separation membrane element as claimed in claim 1, wherein the passage material has a thickness of 0.5-1.5 mm at a warp/weft intersection.

9. A spiral separation membrane element which comprises a perforated cored central tube and, wound therearound, one or more separation membranes, one or more feed-side passage materials, and one or more permeation-side passage materials, wherein the feed-side passage materials each have warps extending almost parallel with the direction of flow of a feed liquid and wefts which are thinner than the warps, and a ratio of the warp diameter to the weft diameter is 2.5/1 or smaller.

10. The spiral separation membrane element as claimed in claim 9, wherein the warp pitch is 2.5-5 mm, and the weft pitch is 10-20 mm.

11. The spiral separation membrane element as claimed in claim 9, wherein the warp/weft intersection angle is 0-80°.

12. The spiral separation membrane element as claimed in claim 11, wherein the angle is 30-70°.

13. The spiral separation membrane element as claimed in claim 9, wherein the ratio is 1.1/1 to 2.3/1.

14. The spiral separation membrane element as claimed in claim 9, wherein the passage material has a thickness of 0.5-1.5 mm at a warp/weft intersection.